

REMARKS

To summarize, Claim 31 has been cancelled and Claims 36-40 have been added. Allowed Claims 12-29 have not been amended.

In the Office Action, Claims 30 and 31 stand rejected under 35 USC 102(e) as being anticipated by Hilscher, U.S. Patent No. 7 086 111.

Claim 30 has been amended to include the features of cancelled Claim 31 and to recite "said cutting head including a cutting edge for cutting tissue".

Hilscher discloses an electric dental cleaning device that comprises an electric toothbrush. The device includes a transponder 19 mounted to a brush attachment 2 and a handle section 1 having a detector 20 as shown in Figure 18. As shown in Figure 18(a), the transponder 19 can be bonded to a slip-on ring. The dental cleaning device also includes various brush attachments 2 that are seatable upon the end of a handle section 1. The brush attachments 2 have a brush head 4 projecting perpendicular from the length of the axis thereof. Thus, the brush attachments function as a toothbrush for cleaning the surface of teeth.

Claim 30 recites a cutting accessory including "a cutting head attached to or integrally formed with a distal end of said shaft, said cutting head including a cutting edge for cutting tissue". The bristles of the toothbrush of Hilscher do not act as a "cutting accessory", much less a cutting accessory including a "cutting edge for cutting tissue". As discussed above, Hilscher is directed to an electric toothbrush that is not configured in any way to act as a surgical accessory.

For the above reasons, Claim 30 is believed allowable over Hilscher.

Claims 30-32 stand rejected under 35 USC §103 as being unpatentable over Rexroth, U.S. Patent No. 5 269 794 in view of Gray, U.S. Patent No. 6 019 745.

Rexroth discloses a cutting blade assembly for an arthroscopic surgical instrument drive system. The disposable, single use cutting blade assembly includes a number of recesses 91 for receiving a coding element depending on the optimal rotational speed range for the blade. As set forth at column 9, lines 15-42, there are three possible speed ranges for cutting blades. For low speed blades, there are no recesses defined in the surface. For intermediate speed blades there is one recess 91 having a magnet 92 therein. For high speed blades, two recesses 91 are provided symmetrically on opposite sides of a hub 86, each recess 91 receiving a magnet 92. In operation, a reed switch assembly 107 having a pair of normally open switch contacts 108, 109 are oriented to sense the presence of the magnets in the blade assembly so as to register the coded information (presence of a permanent magnet) for the inserted blade. In conclusion, Rexroth provides an arrangement that determines the number of magnets mounted to a cutting blade and controls the speed of the cutting blade accordingly.

Rexroth does not disclose an active electric field being output, much less a blade coding element (permanent magnet) providing a signal in response thereto. Further, Rexroth does not disclose information as to the type of blade, except for the desired speed.

Gray discloses syringes used with syringe pumps, wherein the syringes have a data carrier in the form of an electrically or magnetically operable device carrying data relating to the medicament contained or to be contained within the syringe. The data carrying device 2c can be read by an apparatus provided with a syringe pump, when the syringe is mounted thereon to be driven (emptied of medicament) by the syringe pump.

The data carrier 2c can store identification data for the medicament, a batch number for the medicament and its expiration date. Alternative data could also be provided.

Figure 3 of Gray shows a transponder 15 mounted on a chip carrier connected to coils 16, 17, and encapsulated within the syringe finger grip 2. Figure 4 shows a circumferential magnetic ink bar code formed by ink bars 20 provided on a syringe label that is read by Hall effect transducers 19 mounted within electromagnets. The electromagnets output a magnetic field to read the ink bars.

Figure 5 of Gray shows an inductor wound as two coils 21, 22 in series connected to each end of a chip capacitor. The inductor may be conductive ink printed onto a carrier film and moulded into the syringe finger grip as disclosed at column 7, lines 15-20.

Figure 7 of Gray shows a fundamental resonance system wherein two steel strips are provided on a syringe tag. The syringe pump generates a magnetic field that scans different frequencies until the syringe tag mechanically resonates at its resonance frequency. Figure 8 shows a harmonic resonance system wherein a magneto restrictive strip 26 biased with two magnets 27 is excited by a magnet field produced by the syringe pump to determine a fundamental resonance, and optionally two additionally strong harmonics. The two magnets 27 may be separate magnetic strips. Each detected resonance or harmonic may provide a separate item of information, such as an identification of a particular medicament and its concentration.

Figure 9 of Gray shows a resonance detection system wherein the syringe pump has a circuit that outputs a magnetic field to detect the resonant frequencies of two magneto restrictive tag systems provided on the syringe. Pulses generating a magnetic field are output to a tag 2c that is mounted on the syringe adjacent the syringe pump.

Gray does not disclose or suggest a cutting accessory, much less for attachment to a powered surgical tool for cutting tissue as recited in Claim 30. Further, Gray does not disclose a cutting head, much less a cutting head including a cutting edge for cutting tissue. Moreover, Gray does not

disclose any information with regard to the syringe structure or operation of the syringe pump, but only discloses information regarding a medicament contained within the syringe. Therefore, there is no motivation to modify the handpiece and blade of Rexroth in view of the syringe arrangement of Gray.

Page 3 of the Office Action states that Rexroth discloses a "magnetic chip 92". Applicants traverse this characterization, as element 92 of Rexroth is defined only as a magnet provided in recesses of the plastic hub of a cutting blade assembly.

As discussed above, Gray is directed to a syringe and syringe pump that is not related to an arthroscopic surgical instrument as disclosed in Rexroth. Further, rather than utilizing a passive magnet mounted on a cutting blade assembly to open/close switches provided on the distal end of a handpiece as in Rexroth, Gray requires the syringe pump to generate a magnetic field that the syringe tag affects in order to provide information therefrom. Thus, Gray discloses an active system, wherein the syringe pump must output a magnetic field to read information from the cutting blade assembly. Accordingly, Gray functions in an opposite manner to the passive magnets mounted in the cutting blade assembly of Rexroth. Therefore, there is no motivation, absent Applicants' specification, to consider modifying Rexroth by substituting a passive transponder on a syringe of Gray for the magnets on a cutting blade assembly providing a magnetic field in Rexroth, and then further substituting a driven magnetic field and sensor from the syringe pump of Gray for the passive reed switches provided on the handpiece of Rexroth.

The Office Action states that the magnetic chip of Rexroth (actually a passive permanent magnet) is an art-recognized equivalent to the transponder with an antenna of Gray, and thus it would have been obvious to one of ordinary skill to substitute each one for the other. Applicants agree

that both the magnet arrangement and the transponder arrangement represent data. The two methods, however, differ entirely in the type of arrangement, as the magnet of Rexroth is active as shown by the magnetic field output therefrom to control a reed switch. The transponder of Gray, however, is passive in that an electromagnetic field is required to enable the transponder to provide an output. Moreover, the device of Gray is not utilized to provide information regarding the properties or conditions of a tool structure as in Rexroth, or even of the syringe structure.

In view of the above, there is believed to be no motivation to provide the transponder features of Gray for the cutting blade assembly of Rexroth.

Even if Gray were combined with Rexroth, which Applicants disagree with, the claimed invention would not result. Claim 30 recites "a transponder removably secured within said cutting accessory and configured to wirelessly communicate at least one of identification and operational information concerning said cutting accessory to the powered surgical tool". The transponder of Gray is not removably secured to the syringe. Column 7, lines 33-36 of Gray discloses that the tag 2c shown in Figure 1 is molded into the syringe finger grip projection. Column 6, lines 32-37 of Gray discloses a transponder 15 mounted on a chip carrier connected to two aerial coils that is "encapsulated" within the syringe finger grip 2 as shown in Figure 3.

Figure 4 of Gray shows a syringe label 18 including magnetic ink bars 20 thereon that is secured to the syringe. The syringe label 18 is not removably attached to the syringe. Thus, the ink bars 20 are not removable.

The data carrying device 2c of Gray typically is incapacitated after one use and the syringe is disposable. Column 10, lines 48-50 of Gray emphasizes embedding or molding/ encapsulating a data carrier device onto the syringe. Column 10, lines 44-47 and 51-56 of Gray discloses disabling the syringe after one use. Thus there is no reason to make

the data carrying device 2c or the magnetic ink bars 20 replaceable, as the syringe is used only once and discarded.

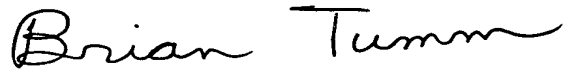
In conclusion, even if the data carrier arrangement of Gray were substituted for the arrangement of Rexroth, which Applicants disagree with, any resulting transponder that is provided on a cutting accessory would not be removably secured within the cutting accessory. Thus, the claimed invention would not result.

For the above reasons, Claim 30, and Claim 32 dependent therefrom, are believed allowable over Rexroth in view of Gray.

Added dependent Claims 36-40 are believed allowable for the reasons set forth above with respect to Claim 30.

In view of the above, the instant application is believed to be in condition for allowance, and action toward that end is respectfully solicited.

Respectfully submitted,



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